

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri

PROPOSED AMENDMENT

10 CSR 10-6.065 Operating Permits. The commission proposes to amend section (2) and subsection (7)(A). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

*PURPOSE: This rule defines air contaminant sources which are required to obtain operating permits and establishes procedures for obtaining and complying with operating permits; it does not establish any air quality standards or guidelines. This amendment incorporates permitting requirements that will cover new construction projects that emit greenhouse gas (GHG) emissions of at least one hundred thousand (100,000) tons per year or modifications at existing facilities that increase GHG emissions by at least seventy-five thousand (75,000) tons per year, removes definitions that will now be found in regulation 10 CSR 10-6.020, and streamlines the public notice procedure to align with the **Federal Register** and allow the flexibility to publish notices on the web. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is a June 3, 2010, **Federal Register** Notice.*

(2) Definitions.

[(A) Air Pollutant—Agent, or combination of agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the staff director has identified such precursor(s) for the particular purpose for which the term "air pollutant" is used.

(B) Basic state installations—Installations which meet any of the following criteria, but are not part 70 installations:

1. Emit or have the potential to emit any air pollutant in an amount greater than the de minimis levels. The fugitive emissions of an installation shall not be considered unless the installation belongs to one of the source categories listed in 10 CSR 10-6.020(3)(B), Table 2; or

2. Either of the following criteria, provided the U.S. EPA administrator has deferred a decision on whether the installation would be subject to part 70:

A. Are subject to a standard, limitation or other requirement under section 111 of the Act, including area sources subject to a standard, limitation or other requirement under section 111 of the Act; or

B. Are subject to a standard or other requirement under section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to rules or requirements under section 112(r) of the Act, including area sources subject to a standard or other requirement under section 112 of the Act, except that an area source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of the Act.

(C) Intermediate installations are part 70 installations that become basic state installations based on their potential to emit by accepting the imposition of voluntarily agreed to federally-enforceable limitations on the type of materials combusted or processed, operating rates, hours of operation, or emission rates more stringent than those otherwise required by rule or regulation.]

[(D)](A) Part 70 installations—Installations to which the part 70 operating permit requirements of this rule apply, in accordance with the following criteria:

1. They emit or have the potential to emit, in the aggregate, ten (10) tons per year (tpy) or more of any hazardous air pollutant, other than radionuclides, or twenty-five (25) tpy or more of any combination of these hazardous air pollutants or such lesser quantity as the administrator may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not these units are in a contiguous area or under common control, to determine whether these units or stations are subject installations. For sources of radionuclides, the criteria shall be established by the administrator;

*2. They emit or have the potential to emit one hundred (100) tpy or more of any air pollutant **subject to regulation**, including all fugitive air pollutants. The fugitive emissions of an installation shall not be considered unless the installation belongs to one (1) of the source categories listed in 10 CSR 10-6.020(3)(B), Table 2. **Subject to regulation means, for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act or a nationally-applicable regulation codified by the administrator in 40 CFR Parts 50-99, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit, or restrict the quantity of emissions of that pollutant released from the regulated activity, except that—***

A. Greenhouse gases (GHGs), the air pollutant defined as the aggregate group of six (6) greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation unless, as of July 1, 2011, the GHG emissions are at a stationary source emitting or having the potential to emit one hundred thousand (100,000) tpy carbon dioxide (CO₂) equivalent emissions; and

B. The term tpy CO₂ equivalent emissions (CO₂e) shall represent an amount of GHGs emitted and shall be computed by multiplying the mass amount of emissions (tpy), for each of the six (6) greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of 40 CFR Part 98, promulgated as of October 30, 2009, and summing the resultant value for each to compute a tpy CO₂e. Table A-1 is hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions;

3. They are located in nonattainment areas or ozone transport regions.

A. For ozone nonattainment areas, sources with the potential to emit one hundred (100) tpy or more of volatile organic compounds or oxides of nitrogen in areas classified as "marginal" or "moderate," fifty (50) tpy or more in areas classified as "serious," twenty-five (25) tpy or more in areas classified as "severe," and ten (10) tpy or more in areas classified as "extreme"; except that the references in this paragraph to one hundred (100), fifty (50), twenty-five (25), and ten (10) tpy of nitrogen oxides shall not apply with respect to any source for which the administrator has made a finding, under section 182(f)(1) or (2) of the Act, that requirements under section 182(f) of the Act do not apply;

B. For ozone transport regions established pursuant to section 184 of the Act, sources with the potential to emit fifty (50) tpy or more of volatile organic compounds;

C. For carbon monoxide nonattainment areas that are classified as "serious," and in which stationary sources contribute significantly to carbon monoxide levels as determined under rules issued by the administrator, sources with the potential to emit fifty (50) tpy or more of carbon monoxide; and

D. For particulate matter less than ten (10) micrometers (PM₁₀) nonattainment areas classified as "serious," sources with the potential to emit seventy (70) tpy or more of PM₁₀;

4. They are affected sources under Title IV of the 1990 Act;

5. They are solid waste incinerators subject to section 129(e) of the Act;

6. Any installation in a source category designated by the administrator as a part 70 source pursuant to 40 CFR 70.3; and

7. Installations that would be part 70 sources strictly due to the following criteria are not subject to part 70 source requirements until the administrator subjects this installation to these requirements by rule:

A. They are subject to a standard, limitation, or other requirement under section 111 of the Act, including area sources; or

B. They are subject to a standard or other requirement under section 112 of the Act, except that a source, including an area source, is not required to obtain a permit solely because it is subject to rules or requirements under section 112(r) of the Act.

[(E)](B) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(7) Public Participation. Except for proposed modifications qualifying for the minor permit modification procedures, all permit proceedings, including initial permit issuance, significant permit modifications, and permit renewals, shall be conducted in accordance with the procedures for public participation in this section (7).

(A) Drafts for Public Comment and Public Notice. After receipt of an application for a permit, significant permit modification, or permit renewal, and no later than sixty (60) days before the deadline for issuance of a permit, significant permit modification, or permit renewal for the administrator's review, the permitting authority shall issue a draft permit and solicit comment from the applicant, affected states, and the public as follows:

1. The permitting authority shall provide notice to the public by—

A. Making available in at least one (1) location in the area in which the installation is located a public file containing copies of all materials that the applicant has submitted other than those granted confidential treatment, copies of the preliminary determination and draft permit, modified permit or permit renewal, and a copy or summary of other materials, if any, considered in making the preliminary permit determination; or

B. State publication or web site designed to give general public notice details of the proposed action or [P]ublishing[, by advertisement] in at least one (1) newspaper of general circulation in the area in which the installation is located, a notice of the application, the preliminary permit determination, the location of the public file, the procedures for submitting written comments and for requesting a public hearing, and the date, time, and location for a public hearing if one is to be held.

2. Copies of the notice required shall be sent to the applicant and to the representatives of affected states designated by those states to receive the notices.

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Sept. 2, 1993, effective May 9, 1994. For intervening history, please consult the Code of State Regulations. Amended: Filed Nov. 30, 2010.

PUBLIC COST: This proposed amendment will cost state agencies or

political subdivisions \$4,500,800 over the life of the rule. The cost for fiscal year 2013 is estimated to be five hundred eighty thousand dollars (\$580,000). Note the attached fiscal note for assumptions that apply.

PRIVATE COST: This proposed amendment will cost private entities \$41,620,000 over the life of the rule. The cost for fiscal year 2013 is estimated to be \$5,220,000. Note the attached fiscal note for assumptions that apply.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed amendment will begin at 9:00 a.m., February 3, 2011. The public hearing will be held at the Doubletree Hotel and Conference Center, Ballrooms C, D, and E, 16625 Swingley Ridge Road, Chesterfield, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., February 10, 2011. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

**FISCAL NOTE
PUBLIC COST**

- I. Department Title:** Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

| | |
|------------------------------|-----------------------------------|
| Rule Number and Name: | 10 CSR 10-6.065 Operating Permits |
| Type of Rulemaking: | Amendment |

II. SUMMARY OF FISCAL IMPACT

| Affected Agency or Political Subdivision | Estimated Cost of Compliance in the Aggregate |
|--|---|
| Publically owned greenhouse gas sources | |
| - Phase 1 | \$0 |
| - Phase 2 | \$1,160,000 |
| - Continuing Phase 2 | \$3,340,800 |
| Total – ten (10) years | \$4,500,800 |

III. WORKSHEET

Phase 1 - Sources are already subject to title V due to their non-Greenhouse Gas (GHG) pollutants

Five (5) already required to obtain operating permits x \$0 = \$0

Phase 2 - Sources subject to title V due to their GHG pollutants

Twenty-five (25) title V operating permits x \$46,400 application = \$1,160,000

Continuing Phase 2 - Sources subject to title V due to their GHG pollutants

Twelve (12) title V operating permits per year x \$46,400 application = \$556,800 x six (6) years = \$3,340,800

Summary of Permitting Application Worksheet Costs

| | 1/2011 – 6/2011 | 7/2011 – 6/2013 | 7/2013 – 6/2020 |
|--------------------|-----------------|-----------------|-----------------|
| Phase 1 | \$0 | - | - |
| Phase 2 | - | \$1,160,000 | - |
| Continuing Phase 2 | - | - | \$3,340,800 |
| Total – All Phases | | \$4,500,800 | |

| | |
|------------------|-----------|
| Fiscal Year 2012 | \$580,000 |
| Fiscal Year 2013 | \$580,000 |
| Fiscal Year 2014 | \$556,800 |
| Fiscal Year 2015 | \$556,800 |
| Fiscal Year 2016 | \$556,800 |
| Fiscal Year 2017 | \$556,800 |
| Fiscal Year 2018 | \$556,800 |
| Fiscal Year 2019 | \$556,800 |

VII. ASSUMPTIONS

1. During the first phase of the rule title V requirements will apply to sources' GHG emissions only if such sources are already subject to title V due to their non-GHG pollutants. Based on information from previous years, it is estimated that eighty (80) operating permits will be affected during Phase 1 of the program which runs from January 2, 2011 – June 30, 2011. For this fiscal note, we assume that five (5) sources will be publically owned. Title V operating permits do not contain new requirements; the source will address GHG emissions by listing applicable requirements for GHG emissions. Currently, unless a source goes through PSD permitting for GHG emissions in this time frame, the only applicable requirement for GHG emissions is the federal Greenhouse Gas Reporting Rule. Adding the listing of the federal Greenhouse Gas Reporting Rule is not expected to cost the source any additional money. Phase 1 occurs prior to the effective date of this rule so there is no cost.
2. During the second phase of the rule additional large sources of GHG emissions with the potential to emit at least 100,000 tons per year of CO₂ equivalent will become subject to title V requirements. For Phase 2 of the program, which runs from July 1, 2011 – June 30, 2013, it is estimated that two hundred fifty (250) operating permits will be affected. For this fiscal note, we assume that twenty-five (25) sources will be publically owned. The Environmental Protection Agency (EPA) estimates that nationwide, sources that would need title V operating permits will spend an average cost ranging from \$23,200 to \$46,400 to prepare the application and receive the permit. The range in cost is due to whether the source is considered an industrial source or a commercial/residential source. In generating the fiscal impact, since we have no way of knowing what type of source it will be, the more conservative (higher) cost was used.
3. EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012, that will outline an additional step for phasing in GHG permitting (Phase 3) to review permitting for smaller GHG emission sources. EPA will not require permits for smaller sources in Phase 3 or through any other action until at least April 30, 2016. Since there are no details on Phase 3 that could be used in estimating the fiscal impact, for purposes of this fiscal note, we continue Phase 2 into the future as it currently stands using the assumptions from Phase 2. Since the

twenty-five (25) sources in Phase 2 is over a two (2) year period, we use twelve (12) sources per year in continuing Phase 2.

4. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years beginning with Phase 2 although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

FISCAL NOTE PRIVATE COST

- VIII. Department Title:** Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

| | |
|-------------------------------|-----------------------------------|
| Rule Number and Title: | 10 CSR 10-6.065 Operating Permits |
| Type of Rulemaking: | Amendment |

II. SUMMARY OF FISCAL IMPACT

| Estimate of the number of entities by class which would likely be affected by the adoption of the rule: | Classification by types of the business entities which would likely be affected: | Estimate in the aggregate as to the cost of compliance with the rule by the affected entities: |
|---|--|--|
| Phase 1 – seventy-five (75) entities | Sources are already subject to Prevention of Significant Deterioration (PSD) or title V due to their non-Greenhouse Gas (GHG) pollutants | \$0 |
| Phase 2 – two hundred twenty-five (225) entities | Sources subject to PSD or title V due to their GHG pollutants | \$10,440,000 |
| Continuing Phase 2 – one hundred twelve (112) per year | Sources subject to PSD or title V due to their GHG pollutants | \$31,180,000 |
| Total – ten (10) years | | \$41,620,000 |

III. WORKSHEET

Phase 1 - Sources are already subject to PSD due to their non-GHG pollutants
 Seventy-five (75) already required to obtain operating permits x \$0 = \$0

Phase 2 - Sources subject to PSD due to their GHG pollutants
 Two hundred twenty-five (225) title V operating permits x \$46,400 application =
 \$10,440,000

Continuing Phase 2 - Sources subject to PSD due to their GHG pollutants
 One hundred twelve (112) per year title V operating permits x \$46,400 application =
 \$5,196,800 x six (6) years = \$31,180,800

Summary of Permitting Application Worksheet Costs

| | 1/2011 – 6/2011 | 7/2011 – 6/2013 | 7/2013 – 6/2020 |
|--------------------|-----------------|-----------------|-----------------|
| Phase 1 | \$0 | - | - |
| Phase 2 | - | \$10,440,000 | - |
| Continuing Phase 2 | - | - | \$31,180,000 |
| Total – All Phases | | \$41,620,000 | |

| | |
|------------------|-------------|
| Fiscal Year 2012 | \$5,220,000 |
| Fiscal Year 2013 | \$5,220,000 |
| Fiscal Year 2014 | \$5,196,667 |
| Fiscal Year 2015 | \$5,196,667 |
| Fiscal Year 2016 | \$5,196,667 |
| Fiscal Year 2017 | \$5,196,667 |
| Fiscal Year 2018 | \$5,196,667 |
| Fiscal Year 2019 | \$5,196,667 |

IX. ASSUMPTIONS

1. During the first phase of the rule title V requirements will apply to sources' GHG emissions only if such sources are already subject to title V due to their non-GHG pollutants. Based on information from previous years, it is estimated that eighty (80) operating permits will be affected during Phase 1 of the program which runs from January 2, 2011 – June 30, 2011. For this fiscal note, we assume that seventy-five (75) sources will be privately owned. Title V operating permits do not contain new requirements; the source will address GHG emissions by listing applicable requirements for GHG emissions. Currently, unless a source goes through PSD permitting for GHG emissions in this time frame, the only applicable requirement for GHG emissions is the federal Greenhouse Gas Reporting Rule. Adding the listing of the federal Greenhouse Gas Reporting Rule is not expected to cost the source any additional money. Phase 1 occurs prior to the effective date of this rule so there is no cost.
2. During the second phase of the rule additional large sources of GHG emissions with the potential to emit at least 100,000 tons per year of CO₂ equivalent will become subject to title V requirements. For Phase 2 of the program, which runs from July 1, 2011 – June 30, 2013, it is estimated that two hundred fifty (250) operating permits will be affected. For this fiscal note, we assume that two hundred twenty-five (225) sources will be privately owned. The Environmental Protection Agency (EPA) estimates that nationwide, sources that would need title V operating permits will spend an average cost ranging from \$23,200 to \$46,400 to prepare the application and receive the permit. The range in cost is due to whether the source is considered an

industrial source or a commercial/residential source. In generating the fiscal impact, since we have no way of knowing what type of source it will be, the more conservative (higher) cost was used.

3. EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012, that will outline an additional step for phasing in GHG permitting (Phase 3) to review permitting for smaller GHG emission sources. EPA will not require permits for smaller sources in Phase 3 or through any other action until at least April 30, 2016. Since there are no details on Phase 3 that could be used in estimating the fiscal impact, for purposes of this fiscal note, we continue Phase 2 into the future as it currently stands using the assumptions from Phase 2. Since the two hundred twenty-five (225) sources in Phase 2 is over a two (2) year period, we use one hundred twelve (112) sources per year in continuing Phase 2.
4. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years beginning with Phase 2 although the duration of the rule is indefinite. If the life of the rule extends beyond ten years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

**Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 10—Air Conservation Commission
Chapter 6—Air Quality Standards, Definitions, Sampling
and Reference Methods and Air Pollution Control
Regulations for the Entire State of Missouri**

PROPOSED AMENDMENT

10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators. The commission proposes to amend subsections (1)(A), (1)(H), (1)(I), (4)(A)–(4)(C), and (4)(F) and sections (2), (3), and (5). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/reg/index.html.

PURPOSE: This rule establishes emission limits for existing hospital, medical, and infectious waste incinerators. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is the *Federal Register* Notice dated October 6, 2009, regarding Hospital, Medical, Infectious Waste Incinerators.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability.

(A) Except as provided in subsection (1)(B) through (H) of this rule, this rule applies to each individual hospital or medical/infectious waste incinerator (HMIWI) [for which construction was commenced on or before June 20, 1996.]—

1. For which construction was commenced after June 20, 1996, but no later than December 1, 2008; or

2. For which modification is commenced after March 16, 1998, but no later than April 6, 2010.

(H) Physical or operational changes made to an [existing] HMIWI unit solely for the purpose of complying with this rule are not considered a modification and do not result in an [existing] HMIWI unit becoming subject to the provisions of 40 CFR part 60 subpart Ec.

(I) [Beginning September 15, 2000, designated facilities] **Facilities** subject to this rule shall operate pursuant to a permit issued under the permitting authorities operating permit program.

(2) Definitions.

(I)(A) *Batch HMIWI* means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

(B) *Biologicals* means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

(C) *Bypass stack* means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(D) *Chemotherapeutic waste* means waste material resulting from the production or use of antineoplastic agents used

for the purpose of stopping or reversing the growth of malignant cells.

(E) *Co-fired combustor* means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, ten percent (10%) or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar-quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other wastes" when calculating the percentage of hospital waste and medical/infectious waste combusted.

(F) *Continuous HMIWI* means an HMIWI that is designed to allow waste charging and ash removal during combustion.

(G) *Department* means the Department of Natural Resources.

(H) *Dioxins/furans* means the combined emission of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans.

(I) *Director* means the director of the Department of Natural Resources.

(J) *Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

(K) *Hospital* means any facility which has an organized medical staff, maintains at least six (6) inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of twenty-four (24) hours per admissions. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

(L) *Hospital/medical/infectious waste incinerator or HMIWI or HMIWI unit* means any device that combusts any amount of hospital waste and/or medical/infectious waste.

(M) *Hospital waste* means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(N) *Intermittent HMIWI* means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

(O) *Large HMIWI* means an HMIWI whose maximum design waste burning capacity is more than five hundred (500) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is more than five hundred (500) pounds per hour, or a batch HMIWI whose maximum charge rate is more than four thousand (4,000) pounds per day.

(P) *Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

(Q) *Maximum charge rate* means for continuous and intermittent HMIWI, one hundred ten percent (110%) of the lowest three (3)-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits or for batch HMIWI, one

hundred ten percent (110%) of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(R) Maximum fabric filter inlet temperature means one hundred ten percent (110%) of the lowest three (3)-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(S) Maximum flue gas temperature means one hundred ten percent (110%) of the lowest three (3)-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

(T) Medical/infectious waste means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (2)(T)1. through (2)(T)7. below. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in 40 CFR part 261; household waste, as defined in 40 CFR part 261.4(b)(1); ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in 40 CFR part 261.4(a)(1).

1. Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

2. Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

3. Human blood and blood products including:

A. Liquid waste human blood;

B. Products of blood;

C. Items saturated and/or dripping with human blood; and

D. Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category.

4. Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

5. Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

6. Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect

others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

7. Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

(U) Medium HMIWI means an HMIWI whose maximum design waste burning capacity is more than two hundred (200) pounds per hour but less than or equal to five hundred (500) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is more than two hundred (200) pounds per hour but less than or equal to five hundred (500) pounds per hour, or a batch HMIWI whose maximum charge rate is more than one thousand six hundred (1,600) pounds per day but less than or equal to four thousand (4,000) pounds per day.

(V) Minimum dioxin/furan sorbent flow rate means ninety percent (90%) of the highest three (3)-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(W) Minimum Hg sorbent flow rate means ninety percent (90%) of the highest three (3)-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

(X) Minimum hydrogen chloride (HCl) sorbent flow rate means ninety percent (90%) of the highest three (3)-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(Y) Minimum horsepower or amperage means ninety percent (90%) of the highest three (3)-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limit.

(Z) Minimum pressure drop across the wet scrubber means ninety percent (90%) of the highest three (3)-hour average pressure drop across the wet scrubber particulate matter (PM) control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

(AA) Minimum scrubber liquor flow rate means ninety percent (90%) of the highest three (3)-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(BB) Minimum scrubber liquor pH means ninety percent (90%) of the highest three (3)-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all HCl emission limits.

(CC) Minimum secondary chamber temperature means ninety percent (90%) of the highest three (3)-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, carbon monoxide (CO), or dioxin/furan emission limits.

(DD) Pathological waste means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

(EE) Pyrolysis means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(FF) *Small HMIWI* means an HMIWI whose maximum design waste burning capacity is less than or equal to two hundred (200) pounds per hour, or a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to two hundred (200) pounds per hour, or a batch HMIWI whose maximum charge rate is less than or equal to one thousand six hundred (1,600) pounds per day.

(GG) *Standard Metropolitan Statistical Area or SMSA* means any areas listed in Office of Management and Budget Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" date June 30, 1993 (incorporated by reference).

(HH) *Wet scrubber* means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.]

(A) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in the Clean

Air Act and in 40 CFR Part 60, subparts A, B, and Ec.

(B) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) Emission Limits.

1. [On or after the date on which the initial performance test is completed or September 1, 2000, whichever date comes first, no] No owner or operator of an [existing] HMIWI subject to this rule shall cause to be discharged into the atmosphere [from that HMIWI] any gases that contain stack emissions in excess of the limits presented in Table 1 of this subsection, except as provided for in paragraph (3)(A)2. of this rule.

[TABLE 1. EMISSION LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI

| Pollutant | Units (7 percent oxygen, dry basis) | Emission limits | | |
|--------------------|---|-----------------------------|-----------------------------|-----------------------------|
| | | HMIWI size | | |
| | | Small | Medium | Large |
| Particulate matter | milligrams per dry standard cubic meter (grains per dry standard cubic foot) | 115 (0.05) | 69 (0.03) | 34 (0.015) |
| Carbon monoxide | parts per million by volume | 40 | 40 | 40 |
| Dioxins/furans | nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet) | 125 (55) 2.3 (1.0) | 125 (55) 2.3 (1.0) | 125 (55) 2.3 (1.0) |
| Hydrogen chloride | parts per million by volume or percent reduction | 100 or 93 % | 100 or 93 % | 100 or 93 % |
| Sulfur dioxide | parts per million by volume | 55 | 55 | 55 |
| Nitrogen oxides | parts per million by volume | 250 | 250 | 250 |
| Lead | milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction | 1.2 (0.52) or 70 % | 1.2 (0.52) or 70 % | 1.2 (0.52) or 70 % |
| Cadmium | milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction | 0.16 (0.07) or 65 % | 0.16 (0.07) or 65 % | 0.16 (0.07) or 65 % |
| Mercury | milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction | 0.55 (0.24) or 85 % | 0.55 (0.24) or 85 % | 0.55 (0.24) or 85 %] |

Table 1—Emissions Limits for Small, Medium, and Large HMIWI

| Pollutant | Units (7 percent oxygen, dry basis) | Emissions limits | | | Averaging time ¹ | Method for demonstrating compliance ² |
|--------------------|--|------------------------------|--------------------------------------|----------------------------|--|---|
| | | HMIWI size | | | | |
| | | Small | Medium | Large | | |
| Particulate matter | Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf)) | 66 (0.029) | 46 (0.020) or 34 (.015) ³ | 25 (0.011) | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 5 of Appendix A-3 of part 60 or EPA Reference Method 26A or 29 of Appendix A-8 of part 60. |
| Carbon monoxide | Parts per million by volume (ppmv) | 20 | 5.5 | 11 | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 10 or 10B of Appendix A-4 of part 60. |
| Dioxins/furans | Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10 ⁹ dscf) or ng/dscm TEQ (gr/10 ⁹ dscf) | 16 (7.0) or 0.013 (0.0057) | 0.85 (0.37) or 0.020 (0.0087) | 9.3 (4.1) or 0.054 (0.024) | 3-run average (4-hour minimum sample time per run) | EPA Reference Method 23 of Appendix A-7 of part 60. |
| Hydrogen chloride | ppmv | 44 or 15 or 99% ³ | 7.7 | 6.6 | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 26 or 26A of Appendix A-8 of part 60. |
| Sulfur dioxide | ppmv | 4.2 | 4.2 | 9.0 | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 6 or 6C of Appendix A-4 of part 60. |
| Nitrogen oxides | ppmv | 190 | 190 | 140 | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 7 or 7E of Appendix A-4 of part 60. |
| Lead | mg/dscm (grains per thousand dry standard cubic feet (gr/10 ³ dscf)) | 0.31 (0.14) | 0.018 (0.0079) | 0.036 (0.016) | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 29 of Appendix A-8 of part 60. |
| Cadmium | mg/dscm (gr/10 ³ dscf) | 0.017 (0.0074) | 0.013 (0.0057) | 0.0092 (0.0040) | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 29 of Appendix A-8 of part 60. |
| Mercury | mg/dscm (gr/10 ³ dscf) | 0.014 (0.0061) | 0.025 (0.011) | 0.018 (0.0079) | 3-run average (1-hour minimum sample time per run) | EPA Reference Method 29 of Appendix A-8 of part 60. |

¹ Except as allowed under section 60.56c(c) for HMIWI equipped with Continuous Emission Monitoring System (CEMS).² Does not include CEMS and approved alternative non-EPA test methods allowed under section 60.56c(b).³ HMIWI constructed after June 20, 1996, but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010.

2. *[Small rural]* No owner or operator of a small HMIWI constructed on or before June 20, 1996, which is located more than fifty (50) miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than two thousand (2,000) pounds per week of hospital waste and medical/infectious waste shall *[comply with the emission limits described in subparagraphs (3)(A)2.A. and B. of this rule]* cause to be discharged into the atmosphere any gases that contain stack emissions in excess of the limits presented in Table 2 of this paragraph. The two thousand (2,000) pounds per week limitation does not apply during performance tests.

[A. On or after the date on which the initial equipment inspection is completed or September 1, 2000, whichever date comes first, no owner or operator of an existing small rural HMIWI shall cause to be discharged into the atmosphere from that HMIWI any gases that contain stack emissions in excess of the limits presented in Table 2 of this subparagraphs.]

[TABLE 2. EMISSION LIMITS FOR SMALL RURAL HMIWI]

| Pollutant | Units (7 percent oxygen, dry basis) | HMIWI Emission limits |
|---------------------------|--|--|
| Particulate matter | milligrams per dry standard cubic meter (grains per dry standard cubic foot) | 197 (0.086) |
| Carbon monoxide | parts per million by volume | 40 |
| Dioxins/furans | nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet) | 800 (350) or 15 (6.6) |
| Hydrogen chloride | parts per million by volume | 3100 |
| Sulfur dioxide | parts per million by volume | 55 |
| Nitrogen oxides | parts per million by volume | 250 |
| Lead | milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) | 10 (4.4) |
| Cadmium | milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) | 4 (1.7) |
| Mercury | milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) | 7.5 (3.3)] |

**Table 2—Emissions Limits for Small HMIWI Which Meet
the Criteria Under Paragraph (3)(A)2. of this Rule**

| Pollutant | Units (7 percent oxygen, dry basis) | HMIWI Emissions limits | Averaging time¹ | Method for demonstrating compliance² |
|-------------------------------|--|---------------------------------------|--|--|
| Particulate matter | mg/dscm (gr/dscf) | 87 (0.038) | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 5 of Appendix A-3 of part 60 or EPA Reference Method 26A or 29 of Appendix A-8 of part 60. |
| Carbon monoxide | ppmv | 20 | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 10 or 10B of Appendix A-4 of part 60. |
| Dioxins/furans | ng/dscm total dioxins/furans (gr/10 ³ dscf) or ng/dscm TEQ (gr/10 ³ dscf) | 240 (100) or 5.1 (2.2) | 3-run average (4- hour minimum sample time per run) | EPA Reference Method 23 of Appendix A-7 of part 60. |
| Hydrogen chloride | ppmv | 810 | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 26 or 26A of Appendix A-8 of part 60. |
| Sulfur dioxide | ppmv | 55 | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 6 or 6C of Appendix A-4 of part 60. |
| Nitrogen oxides | ppmv | 130 | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 7 or 7E of Appendix A-4 of part 60. |
| Lead | mg/dscm (gr/10 ³ dscf) | 0.50 (0.22) | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 29 of Appendix A-8 of part 60. |
| Cadmium | mg/dscm (gr/10 ³ dscf) | 0.11 (0.048) | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 29 of Appendix A-8 of part 60. |
| Mercury | mg/dscm (gr/10 ³ dscf) | 0.0051 (0.0022) | 3-run average (1- hour minimum sample time per run) | EPA Reference Method 29 of Appendix A-8 of part 60. |

¹ Except as allowed under section 60.56c(c) for HMIWI equipped with CEMS.

² Does not include CEMS and approved alternative non-EPA test methods allowed under section 60.56c(b).

[B. On or after the date on which the initial inspection is completed or September 1, 2000, whichever date comes first, no owner or operator of an existing small rural HMIWI shall cause to be discharged into the atmosphere from the stack of that HMIWI any gases that exhibit greater than ten percent (10%) opacity (six (6)-minute block average).]

3. [On or after the date on which the initial performance test is completed or September 1, 2000, whichever date comes first, no] No owner or operator of an [existing] HMIWI subject to this rule shall cause to be discharged into the atmosphere from the stack of that HMIWI any gases that exhibit greater than [ten] six percent ([10]/6%) opacity (six (6)-minute block average).

(B) Operator Training and Qualification Requirements.

1. No owner or operator of an [existing] HMIWI subject to this rule shall allow the HMIWI to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one (1) hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct

supervisor of one (1) or more HMIWI operators.

2. Operator training and qualification shall be obtained by completing the requirements included in paragraphs (3)(B)3. through 7. of this rule.

3. Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

A. Twenty-four (24) hours of training on the following subjects:

(I) Environmental concerns, including pathogen destruction and types of emissions;

(II) Basic combustion principles, including products of combustion;

(III) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(IV) Combustion controls and monitoring;

(V) Operation of air pollution control equipment and factors affecting performance (if applicable);

(VI) Methods to monitor pollutants and equipment calibration procedures (where applicable);

(VII) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

(VIII) Actions to correct malfunctions or conditions that may lead to malfunction;

(IX) Bottom and fly ash characteristics and handling procedures;

(X) Applicable federal, state, and local regulations;

(XI) Work safety procedures;

(XII) Pre-startup inspections; and

(XIII) Record-keeping requirements;

B. An examination designed and administered by the instructor; and

C. Reference material distributed to the attendees covering the course topics.

4. Qualifications shall be obtained by—

A. Completion of a training course that satisfies the criteria under paragraph (3)(B)3. of this rule; and

B. Either six (6) months experience as an HMIWI operator, six (6) months experience as a direct supervisor of an HMIWI operator, or completion of at least two (2) burn cycles under the observation of two (2) qualified HMIWI operators.

5. Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

6. To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least four (4) hours covering, at a minimum, the following:

A. Update of regulations;

B. Incinerator operation, including startup and shutdown procedures;

C. Inspection and maintenance;

D. Responses to malfunctions or conditions that may lead to malfunction; and

E. Discussion of operating problems encountered by attendees.

7. A lapsed qualification shall be renewed by one (1) of the following methods:

A. For a lapse of less than three (3) years, the HMIWI operator shall complete and pass a standard annual refresher course described in paragraph (3)(B)6. of this rule; or

B. For a lapse of three (3) years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph (3)(B)3. of this rule.

8. The owner or operator of an HMIWI shall maintain documentation at the facility that address the following:

A. Summary of the applicable standards under this subpart;

B. Description of basic combustion theory applicable to an HMIWI;

C. Procedures for receiving, handling, and charging waste;

D. HMIWI startup, shutdown, and malfunction procedures;

E. Procedures for maintaining proper combustion air supply levels;

F. Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;

G. Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

H. Procedures for monitoring HMIWI emissions;

I. Reporting and record-keeping procedures; and

J. Procedures for handling ash.

9. The owner or operator of an HMIWI shall establish a program for reviewing the information listed in paragraph (3)(B)8. of this rule annually with each HMIWI operator.

A. The initial review of the information listed in paragraph (3)(B)8. of this rule shall be conducted *[within six (6) months after the effective date of this rule or] prior to assumption of responsibilities affecting HMIWI operation[, whichever date is later]*.

B. Subsequent reviews of the information listed in paragraph (3)(B)8. of this rule shall be conducted annually.

10. The information listed in paragraph (3)(B)8. of this rule shall be kept in a readily-accessible location for all HMIWI operators. This information, along with records of training, shall be available for inspection by the department or its delegated enforcement agent upon request.

(C) Waste Management Plan. The owner or operator of an HMIWI shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as **segregation and recycling of paper, cardboard, plastics, glass, [battery, or metal recycling; or] batteries, food waste, and metals (e.g., aluminum cans, metals-containing devices); segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products.** A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The *[American Hospital Association] development of the waste management plan shall consider the publication entitled **An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities [(incorporated by reference) shall be considered in the development of the waste management plan.]** (Catalog No. 057007), copyright year 1993, and hereby incorporated by reference in this rule, as published by the American Hospital Association Services, Inc., PO Box 92683, Chicago, IL 60675-2683. This rule does not incorporate any subsequent amendments or additions to this publication. The owner or operator of each commercial HMIWI company shall conduct training and education programs in waste segregation for each of the company's waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed previously in this subsection.*

(D) Inspection Guidelines.

1. Each **HMIWI subject to the emission limits under paragraph (3)(A)1. of this rule and each small [rural] HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule** shall undergo an initial equipment inspection *[by September 1, 2000.] that is at least as protective as the following:*

A. At a minimum, an inspection shall include the following:

(I) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation, **and clean pilot flame sensor, as necessary;**

(II) Ensure proper adjustment of primary and secondary chamber combustion air, **and adjust as necessary;**

(III) Inspect hinges and door latches **and lube as necessary;**

(IV) Inspect dampers, fans, and blowers for proper operation;

(V) Inspect HMIWI door and door gaskets for proper sealing;

(VI) Inspect motors for proper operation;

(VII) Inspect primary chamber refractory lining **and clean and repair/replace as necessary;**

(VIII) Inspect incinerator shell for corrosion and/or hot spots;

(IX) Inspect secondary/tertiary chamber and stack; **clean as necessary**;

(X) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(XI) Visually inspect waste bed (grates) **and repair/seal, as necessary**;

(XII) For the burn cycle that follows the inspection, document that the incinerator is operating properly **and make any necessary adjustments**;

(XIII) Inspect air pollution control devices for proper operation, if applicable;

(XIV) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(XV) Inspect bypass stack components;

(XVI) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(XVII) Generally observe that the equipment is maintained in good operating condition~~/.~~; **and**

B. Within ten (10) operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the department or local air pollution control authority establishing a date whereby all necessary repairs of the designated facility shall be completed.

2. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small *[rural]* HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule shall undergo an equipment inspection annually (no more than twelve (12) months following the previous annual equipment inspection), as outlined in *[sub]paragraph[s]* (3)(D)1.*[A. and B.]* of this rule.

3. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule shall undergo an initial air pollution control device inspection, as applicable, that is at least as protective as the following:

A. At a minimum, an inspection shall include the following:

(I) Inspect air pollution control device(s) for proper operation, if applicable;

(II) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(III) Generally observe that the equipment is maintained in good operating condition; and

B. Within ten (10) operating days following an air pollution control device inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Missouri Department of Natural Resources' Air Pollution Control Program establishing a date whereby all necessary repairs of the designated facility shall be completed.

4. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule shall undergo an air pollution control device inspection, as applicable, annually (no more than twelve (12) months following the previous annual air pollution control device inspection), as outlined in paragraph (3)(D)3. of this rule.

(E) Compliance and Performance Testing.

1. The emission limits under this rule apply at all times *[except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the HMIWI during startup, shutdown, or malfunction]*.

2. Except as provided in paragraph (3)(E)/11./12. of this rule, the owner or operator of an HMIWI subject to this rule shall conduct an initial performance test to determine compliance with the emission limits using the procedures and test methods listed in subparagraphs (3)(E)2.A. through *[K./L.]* of this rule. The use of the bypass stack during a performance test shall invalidate the perfor-

mance test. **For small HMIWIs as defined in paragraph (3)(A)2. of this rule, the two-thousand (2,000)-pound-per-week limitation does not apply during performance tests.**

A. All performance tests shall consist of a minimum of three (3) test runs conducted under representative operating conditions.

B. The minimum sample time shall be one (1) hour per test run unless otherwise indicated.

C. **The sampling location and number of traverse points shall be determined using EPA Reference Method 1 of 40 CFR part 60, *[a/Appendix A *[(incorporated by reference)] shall be used to select the sampling location and number of traverse points.]*, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions.***

D. **Gas composition shall be analyzed and include a measurement of oxygen concentration using EPA Reference Method 3, 3A or *[3A/3B]* of 40 CFR part 60, *[a/Appendix A-2 *[(incorporated by reference)]*, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions and shall be used for gas composition analysis, including measurement of oxygen concentration. EPA Reference Method 3, 3A or *[3A/3B]* shall be used simultaneously with each of the other EPA reference methods. As an alternative to EPA Reference Method 3B, ASME PTC-19-10-1981-Part 10, American Society of Mechanical Engineers (ASME), PO Box 2900, 22 Law Drive, Fairfield, NJ, 07007-2900, may be used. This standard is incorporated by reference in this rule, as published by American Society for Testing and Materials (ASTM) International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions.***

E. The pollutant concentrations shall be adjusted to seven percent (7%) oxygen using the following equation:

$$C_{\text{adj}} = C_{\text{meas}} (20.9 - 7) / (20.9 - \% \text{O}_2)$$

where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen

C_{meas} = pollutant concentration measured on a dry basis

$(20.9 - 7)$ = 20.9 percent oxygen - 7 percent oxygen

(defined oxygen correction basis)

20.9 = oxygen concentration in air, percent

$\% \text{O}_2$ = oxygen concentration measured on a dry basis, percent

F. **Particulate Matter (PM) emissions shall be measured using EPA Reference Method 5 *[or 29 of 40 CFR part 60, appendix A *(incorporated by reference)* shall be used to measure the PM emissions.]* of 40 CFR part 60, Appendix A-3, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. An acceptable alternate method for measuring PM emissions is Method 26A or Method 29 of 40 CFR part 60, Appendix A-8, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, PM Continuous Emission Monitoring System (CEMS) may also be used as specified in subparagraph (3)(E)3.C. of this rule.**

G. **Stack opacity shall be measured using EPA Reference Method 9 of 40 CFR part 60, *[appendix A *(incorporated by reference)* shall be used to measure stack opacity.]* Appendix**

A-4 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, demonstration of compliance with the PM standards using bag leak detection systems as specified in paragraph (3)(E)11. of this rule or PM CEMS as specified in subparagraph (3)(E)3.C. of this rule is considered demonstrative of compliance with the opacity requirements.

H. Carbon monoxide (CO) emissions shall be measured using EPA Reference Method 10 or 10B of 40 CFR part 60, *[appendix A (incorporated by reference) shall be used to measure the CO emissions.]* Appendix A-4 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, CO CEMS may be used as specified in subparagraph (3)(E)3.C. of this rule.

I. Total dioxin/furan emissions shall be measured using EPA Reference Method 23 of 40 CFR part 60, *[appendix A (incorporated by reference) shall be used to measure total dioxin/furan emissions.]* Appendix A-7 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, an owner or operator may elect to sample dioxins/furans by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions. Sampling shall be done using Method 23 of Appendix A-7, of 40 CFR part 60, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. The minimum sample time shall be four (4) hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans the following procedures shall be used to determine compliance:

(I) Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23 of 40 CFR part 60, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions;

(II) For each dioxin/furan congener measured in accordance with part (3)(E)2.I.(I) of this rule, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 3 of this part; and

[TABLE 3. TOXIC EQUIVALENCY FACTORS]

Table 3—Toxic Equivalency Factors

| Dioxin/furan congener | Toxic equivalency factor |
|---|--------------------------|
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| octachlorinated dibenzofuran | 0.001 |

(III) Sum the products calculated in accordance with part (3)(E)2.I.(II) of this rule to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

J. Hydrogen chloride (HCl) shall be measured using EPA Reference Method 26 or 26A of 40 CFR part 60, [appendix A (incorporated by reference)] shall be used to measure HCl emissions. If the affected facility has selected the percentage reduction standards for HCl under section (3) of this rule, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

$$(\%R_{HCl}) = \frac{(E_i - E_o)}{E_i} \times 100$$

where:

$\%R_{HCl}$ = percentage reduction of HCl emission achieved
 E_i = HCl emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis)

E_o = HCl emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis)
 Appendix A-8 promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S.

Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, HCl CEMS may be used as specified in subparagraph (3)(E)3.C. of this rule.

K. Lead (Pb), cadmium (Cd), and mercury (Hg) emissions shall be measured using EPA Reference Method 29 [shall be used to measure Lead (Pb), Cadmium (Cd), and Hg emissions. If the affected facility has selected the percentage reduction standards for metals under section (3) of this rule, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$(\%R_{metal}) = \frac{(E_i - E_o)}{E_i} \times 100$$

where:

$\%R_{metal}$ = percentage reduction of metal emission (Pb, Cd, or Hg) achieved

E_i = metal emission concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis)

E_o = metal emission concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent

oxygen (dry basis)] of 40 CFR part 60, Appendix A-8, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. As an alternative, Hg emissions may be measured using ASTM D6784-02. This standard is incorporated by reference in this rule, as published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions. As an alternative for Pb, Cd, and Hg, multi-metals CEMS or Hg CEMS, may be used as specified in subparagraph (3)(E)3.C. of this rule. As an alternative, an owner or operator may elect to sample Hg by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring Hg emissions.

L. Compliance for fugitive ash emissions shall be determined using EPA Reference Method 22 of 40 CFR part 60, Appendix A-7, promulgated as of December 21, 1971, and incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. The minimum observation time shall be a series of three (3) one (1)-hour observations.

3. Following the date on which the initial performance test is completed *[or September 1, 2000, whichever date comes first]*, the owner or operator of an affected facility shall—

A. Determine compliance with the opacity limit by conducting an annual performance test (no more than twelve (12) months following the previous performance test) using the applicable procedures and test methods listed in paragraph (3)(E)2. of this rule;

B. Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than twelve (12) months following the previous performance test) using the applicable procedures and test methods listed in paragraph (3)(E)2. of this rule. If all three (3) performance tests over a three (3)-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two (2) years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than thirty-six (36) months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two (2) years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three (3)-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test; and

C. Facilities using a Continuous Emission Monitoring System (CEMS) to demonstrate compliance with any of the emission limits under section (3) of this rule shall[—]

[(I) Determine] determine compliance with the appropriate emission limit(s) using a twelve (12)-hour rolling average, calculated each hour as the average of the previous twelve (12) operating hours. *[not including startup, shutdown, or malfunction]; and]*

[(III) Operate all CEMS in accordance with the applicable procedures under appendices B and F of 40 CFR part 60 (incorporated by reference).]

4. The owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall—

A. Establish the appropriate maximum and minimum operating parameters, indicated in Table 4 of this subparagraph for each control system, as site-specific operating parameters during the ini-

tial performance test to determine compliance with the emission limits; and

[TABLE 4. OPERATING PARAMETERS TO BE MONITORED AND MINIMUM MEASUREMENT AND RECORDING FREQUENCIES]

Table 4—Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies

| Operating parameters to be monitored | Minimum frequency | | Control system | | |
|---|-------------------|----------------|--|--------------|---|
| | Data measurement | Data recording | Dry scrubber followed by fabric filter | Wet scrubber | Dry scrubber followed by fabric filter and wet scrubber |
| MAXIMUM OPERATING PARAMETERS | | | | | |
| Maximum charge rate | Continuous | 1 per hour | ✓ | ✓ | ✓ |
| Maximum fabric filter inlet temperature | Continuous | 1 per minute | ✓ | | ✓ |
| Maximum flue gas temperature | Continuous | 1 per minute | | ✓ | ✓ |
| MINIMUM OPERATING PARAMETERS | | | | | |
| Minimum secondary chamber temperature | continuous | 1 per minute | ✓ | ✓ | ✓ |
| Minimum dioxin/furan sorbent flow rate | hourly | 1 per hour | ✓ | | ✓ |
| Minimum hydrogen chloride (HCl) sorbent flow rate | hourly | 1 per hour | ✓ | | ✓ |
| Minimum mercury (Hg) sorbent flow rate | hourly | 1 per hour | ✓ | | ✓ |
| Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber | continuous | 1 per minute | | ✓ | ✓ |
| Minimum scrubber liquor flow rate | continuous | 1 per minute | | ✓ | ✓ |
| Minimum scrubber liquor pH | continuous | 1 per minute | | ✓ | ✓ |

B. Following the date on which the initial performance test is completed *[or September 1, 2000, whichever date comes first]*, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 4 and measured as three (3)-hour rolling averages (calculated each hour as the average of the previous three (3) operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

5. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a dry scrubber followed by a fabric filter—

A. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;

B. Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

C. Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

E. Use of the bypass stack *[(except during startup, shutdown, or malfunction)]* shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

6. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a wet scrubber—

A. Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the PM emission limit;

B. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;

C. Operation of the affected facility above the maximum charge rate, below the minimum secondary temperature, and below the minimum scrubber liquor flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

E. Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

F. Use of the bypass stack *[(except during startup, shutdown, or malfunction)]* shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

7. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber—

A. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously

shall constitute a violation of the CO emission limit;

B. Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

C. Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

E. Use of the bypass stack *[(except during startup, shutdown, or malfunction)]* shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

8. The owner or operator of an affected facility may conduct a repeat performance test within thirty (30) days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under paragraphs (3)(E)5., 6., or 7. of this rule.

9. The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber, **or selective noncatalytic reduction technology**, to comply with the emission limits under section (3) of this rule shall petition the administrator for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the administrator.

10. The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The department may request a repeat performance test at any time.

11. The owner or operator of an affected facility that uses an air pollution control device that includes a fabric filter and is not demonstrating compliance using PM CEMS, determines compliance with the PM emissions limit using a bag leak detection system, and meets the requirements in subparagraphs (3)(E)11.A. through L. of this rule for each bag leak detection system.

A. Each triboelectric bag leak detection system may be installed, calibrated, operated, and maintained according to the “Fabric Filter Bag Leak Detection Guidance” (EPA-454/R-98-015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA), Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Measurement Policy Group (D-243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emissions Measurement Center Continuous Emissions Monitoring. Other types of bag leak detection systems shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer’s written specifications and recommendations.

B. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

C. The bag leak detection system sensor shall provide an output of relative PM loadings.

D. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

E. The bag leak detection system shall be equipped with

an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

F. For positive pressure fabric filter systems, a bag leak detector shall be installed in each baghouse compartment or cell.

G. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.

H. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

I. The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."

J. Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted. In no case may the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three-hundred-sixty-five (365)-day period unless such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Each adjustment shall be recorded.

K. Record the results of each inspection, calibration, and validation check.

L. Initiate corrective action within one (1) hour of a bag leak detection system alarm; operate and maintain the fabric filter such that the alarm is not engaged for more than five percent (5%) of the total operating time in a six (6)-month block reporting period. If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of one (1) hour. If it takes longer than one (1) hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

[11./12. Small *[rural]* HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule **that is not equipped with an air pollution control device** shall meet the following compliance and performance testing requirements:

[A. *Conduct the performance testing requirements in paragraph (3)(E)1., subparagraphs (3)(E)2.A. through I., (3)(E)2.K. (Hg only), and (3)(E)3.A. of this rule. The two thousand (2,000) pound per week limitation does not apply during performance tests;*

[B./A. Establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits;

[C./B. Following the date on which the initial performance test is completed *[or September 1, 2000, whichever date comes first]*, ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three (3)-hour rolling averages (calculated as the average of the previous three (3) operating hours) at all times *[except during periods of startup, shutdown and malfunction]*. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s);

[D./C. Except as provided in subparagraph (3)(E)/11.E/12.D. of this rule, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits; and

[E./D. The owner or operator of a designated facility may conduct a repeat performance test within thirty (30) days of the vio-

lation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph must be conducted using the identical operating parameters that indicated a violation under subparagraph (3)(E)/11.D./12.C. of this rule.

13. The owner or operator of a designated facility subject to this rule may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the following conditions are met:

A. The designated facility's previous emissions tests must have been conducted using the applicable procedures and test methods listed in subparagraphs (3)(E)2.A.-L. of this rule. Previous emissions test results obtained using EPA-accepted voluntary consensus standards are also acceptable;

B. The HMIWI at the designated facility shall currently be operated in a manner (e.g., with charge rate, secondary chamber temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s), and the HMIWI may not have been modified such that emissions would be expected to exceed (notwithstanding normal test-to-test variability) the results from previous emissions test(s); and

C. The previous emissions test(s) must have been conducted in 1996 or later.

(F) Monitoring Requirements.

1. Except as provided for under paragraph (3)(F)5. of this rule, the owner or operator of an HMIWI **subject to this rule** shall install, calibrate (to manufacturers' specification), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 4 *[of subparagraph (3)(E)4.A.]* of this rule **(unless CEMS are used as a substitute for certain parameters as specified)** such that these devices (or methods) measure and record values for these operating parameters at the frequency indicated in Table 4 of *[subparagraph (3)(E)4.A.]* **this rule** at all times *[except during periods of start-up and shutdown]*.

2. The owner or operator of an HMIWI shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

3. The owner or operator of an HMIWI using something other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under section (3) of this rule shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to paragraph (3)(E)9. of this rule.

4. The owner or operator of an HMIWI shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter that the HMIWI is combusting hospital waste and/or medical/infectious waste.

5. Small *[rural]* HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule **not equipped with an air pollution control device** shall meet the following monitoring requirements:

A. Install, calibrate (to manufacturers' specification), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation;

B. Install, calibrate (to manufacturers' specification), maintain, and operate a device that automatically measures and records the date, time, and weight of each charge fed into the HMIWI; and

C. The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI operation except during

periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(4) Reporting and Record Keeping.

(A) *[Except as provided for under subsection (4)(F) of this rule, the]* The owner or operator of an HMIWI **subject to this rule** shall maintain the following information (as applicable) for a period of at least five (5) years:

1. Calendar date of each record;
2. Records of the following data:

A. Concentrations of any pollutant listed in section (3) of this rule or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

B. Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

[B./C.] HMIWI charge dates, times, and weights and hourly charge rates;

[C./D.] Fabric filter inlet temperatures during each minute of operation, as applicable;

[D./E.] Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

[E./F.] Amount and type of Hg sorbent used during each hour of operation, as applicable;

[F./G.] Amount and type of HCl sorbent used during each hour of operation, as applicable;

H. Amount and type of Nitrogen Oxides (NO_x) reagent used during each hour of operation, as applicable;

[G./I.] Secondary chamber temperatures recorded during each minute of operation;

[H./J.] Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

[I./K.] Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

[J./L.] Pressure drop across the wet scrubber system during each minute of operation, as applicable;

[K./M.] Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

[L./N.] pH of the scrubber liquor at the inlet to the wet scrubber during each minute of operation, as applicable;

[M./O.] Records indicating use of the bypass stack, including dates, times, and durations; *[and]*

[N./P.] For HMIWI complying with paragraph (3)(E)9. and paragraph (3)(F)3. of this rule, the owner or operator shall maintain all operating parameter data collected; **and**

Q. For affected facilities as defined in this rule, records of the annual equipment inspections, annual air pollution control device inspections, any required maintenance, and any repairs not completed within ten (10) days of an inspection or the time frame established by the director;

3. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (4)(A)2. of this rule have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken;

4. Identification of calendar days, times, and durations of malfunctions, a description of the malfunction, and the corrective action taken;

5. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (4)(A)2. of this rule exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken;

6. The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating parameters, as applicable, **and a description, including sample calculations, of how the operating**

parameters were established or re-established, if applicable;

7. Records showing the names of HMIWI operators who have completed review of the information in paragraph (3)(B)8. of this rule as required by paragraph (3)(B)9. of this rule, including the date of the initial review and all subsequent annual reviews;

8. Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

9. Records showing the names of the HMIWI operators who have met the criteria for qualification under subsection (3)(B) of this rule and the dates of their qualification; and

10. Records of calibration of any monitoring devices as required under paragraphs (3)(F)1., 2., and 3. through 5. of this rule.

(B) The owner or operator of an HMIWI shall submit to the department the information specified in paragraphs (4)(B)1. through 3. of this rule no later than sixty (60) days following the initial performance test. All reports shall be signed by the facilities manager.

1. The initial performance test data as recorded under subparagraphs (3)(E)2.A. through *[K./L.]* of this rule, as applicable.

2. The values for the site-specific operating parameters established pursuant to paragraph *[s/]* (3)(E)4. or 9. of this rule, as applicable, **and a description, including sample calculations, of how the operating parameters were established during the initial performance test.**

3. The waste management plan as specified in subsection (3)(C) of this rule.

(C) An annual report shall be submitted to the department one (1) year following the submission of the information in subsection (4)(B) of this rule and subsequent reports shall be submitted no more than twelve (12) months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in paragraphs (4)(C)1. through 8. of this rule. All reports shall be signed by the facilities manager.

1. The values for the site-specific operating parameters established pursuant to paragraph (3)(E)4., 8., or 9. of this rule, as applicable.

2. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to paragraph (3)(E)4., 8., or 9. of this rule, as applicable.

3. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to paragraph (3)(E)4., 8., or 9. of this rule for the calendar year preceding the year being reported, in order to provide the department with a summary of the performance of the affected facility over a two (2)-year period.

4. Any information recorded under paragraphs (4)(A)3. through 5. of this rule for the calendar year being reported.

5. Any information recorded under paragraphs (4)(A)3. through 5. of this rule for the calendar year preceding the year being reported, in order to provide the department with a summary of the performance of the affected facility over a two (2)-year period.

6. If a performance test was conducted during the reporting period, the results of that test.

7. If no exceedances or malfunctions were reported under paragraphs (4)(A)3. through 5. of this rule for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

8. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(F) The owner or operator of an *[small rural]* HMIWI *[subject to the emission limits under paragraph (3)(A)2. of this rule shall—*

1. *Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within ten (10) days of an inspection or the time frame established by the inspector; and*